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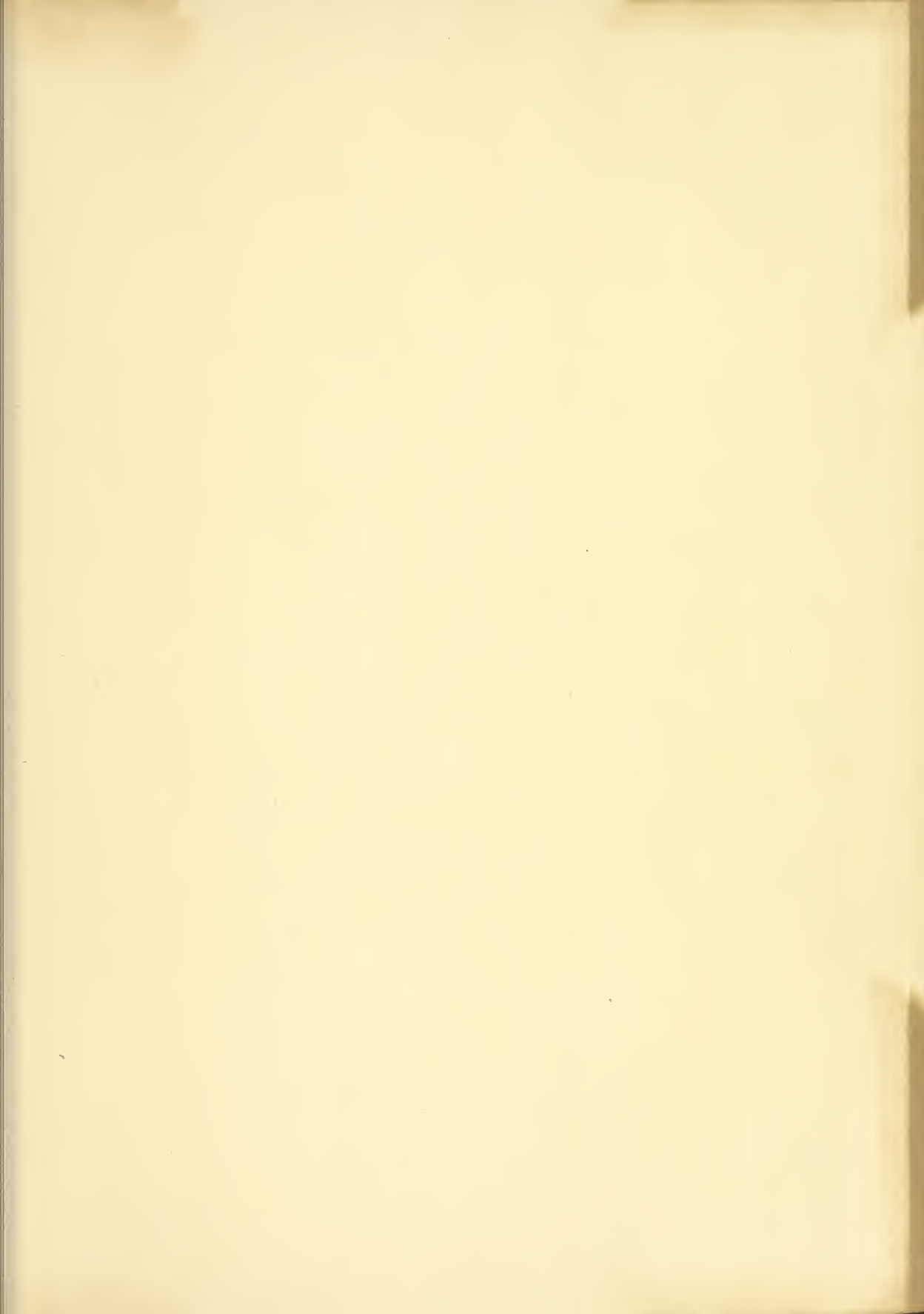


42-33 Bookplate  
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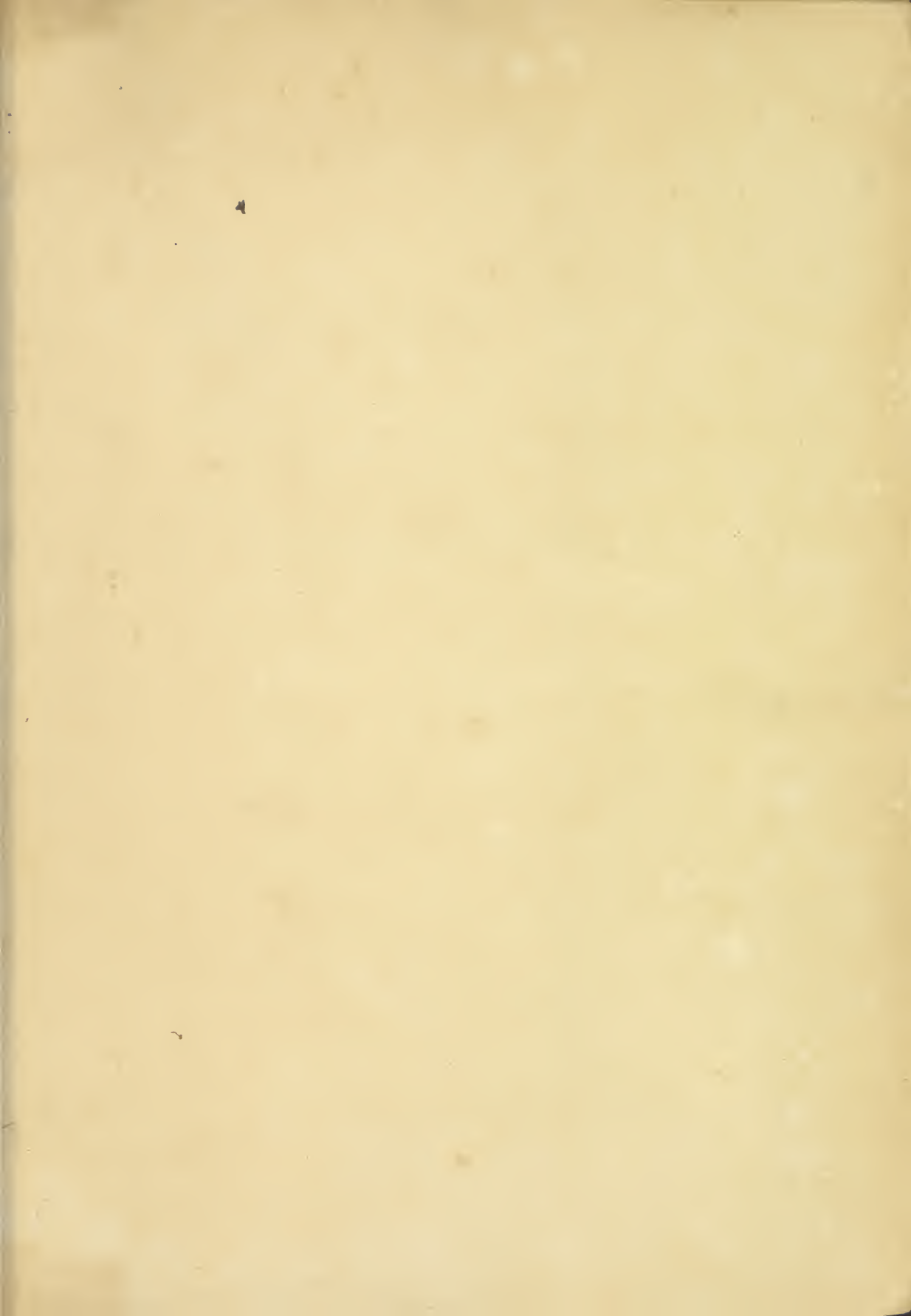
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THE MANUSCRIPT OF JAMES BOLTON'S  
*ICONES FUNGORUM CIRCA HALIFAX  
SPONTE NASCENTIUM*

BY

C. L. SHEAR

REPRINTED FROM THE  
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THE MANUSCRIPT OF JAMES BOLTON'S *ICONES  
FUNGORUM CIRCA HALIFAX  
SPONTE NASCENTIUM*

By C. L. SHEAR

THE Library of the U.S. Department of Agriculture has recently purchased from an old bookseller in Zurich, Switzerland, what proves to be the original manuscript notes and drawings upon which the author, James Bolton, based his work, entitled, *An History of Fungusses growing about Halifax* (England), 4 volumes, 182 copper plates, Halifax, 1788-91.

This manuscript consists of six folio volumes bound in boards with morocco back. This is apparently the original binding and is very well preserved. The paper is heavy hand-made with rough surface very suitable for water-colour illustrations. The volumes contain 244 water-colour plates representing the plants mostly in their natural size with brief remarks on the page opposite each illustration. The first fasciculus contains the following preface in Bolton's hand dated 1784:

PREFACE\*

The Parish of Halifax and its Neighbourhood, consisting wholly of Hills and valleys, and abounding with Watersprings and Rivulets, deep dark Glens, rocky Precipices, Large moors of Moss and Heath, Bushy Bogs, and steep and Rocky Woods, with Fields, Meadows, and Pasture Grounds, of every aspect and of every Soil, Is thereby rendered so rich in its Vegetable productions that it may without impropriety be termed a Natural Botanic Garden. But in no Class of Plants more deservedly so than in the Cryptogamia, and of these in particular the Fungii; There is not perhaps in this or any other Kingdom, a spot of like extent, productive of so vast variety. Consequently there are many species which are new or unknown to the Botanic World, and as nothing was created by the all Wise Author of Nature but for some Great and Good end, (were we acquainted with their uses and their virtues) Therefore every attempt to Illustrate their History, by investigating and ascertaining their species, must, if done from propper motives, be esteemed Laudible. An attempt of this kind I have had in view for a number of years, have kept an observing eye upon them at all seasons, and have from time to time made likenesses in Drawing from such as I collected, in which Work I have all along been scrupulously exact in getting a just representation of each in the various stages of its growth, from its first springing up to its maturity or Decay, and from these sketches partly, and partly from the plants themselves, have I this summer made up this first fasciculus with a view of Laying it at the Feet of the greatest and best Judge, and the noblest and most generous encorager of Natural History now alive in Great Britain, If it is fortunate enough to obtain you Graces approbation, it may be succeeded Annually by three more Fasciculi of equal bulk, which would take in all the Fungii of this neighbourhood both such as are, and such as are not known, To execute such a work well, and

\* Capitalisation and spelling are as in the original.



M E M O R A N D U M.

In this and the three preceding Volumes, the Objects (one Hundred and Eighty two species) which are exhibited in about five Hundred figures, were all gathered in their native places of growth by me, or sent by my Friends when newly gathered, and every figure drawn immediately from those Objects by my own hands.

There are many species of English Fungii mentioned by Authors, which are not here figured, and yet may possibly some of them grow near me, tho' I have not discovered them in my researches, which have been now regularly pursued for more than twenty years; — I shall go on in the inquiry as long as Health and strength permit, and such as I may have the good fortune to meet with I will take care to add to your Lordships store; For my desire is to acquit myself as properly and faithfully as I can to all those whose Generosity enables me to follow my favourite pursuit. I am  
My Lord with the truest sense of  
Humility and Gratitude,  
Your Lordships

most Obedient servant  
James Bolton

Halifax }  
Nov. 24, 5<sup>d</sup> }  
D 1787 }

to have the Honour of Dedicating and presenting it to Your Grace, would afford the Greatest and most sincere Happiness to him, who is not further ambitious, than to make Himself serviceable To the Noble Duchess Dowager of Portland.

Halifax 21<sup>st</sup> Sep.<sup>r</sup> 1784,  
James Bolton

This shows that the first volume was prepared under the patronage of Her Grace, Margaret Cavendishe, Duchess Dowager of Portland. The Duchess having died before the work was completed the later volumes were prepared and the *History* published under the patronage of the Earl of Gainsborough; as is indicated in the fourth volume of the manuscript dated November 3rd, 1787, and also on the title-page of the first volume of the printed work, 1788.

Each illustration is enclosed in a rectangle carefully drawn with red ink. All the writing is very clear and distinct, and all of the plates and the manuscript appear as clean and fresh as though they had been made recently. The facsimile (p. 303) of the "Memorandum" in vol. iv is a good example of the handwriting of the author:

#### MEMORANDUM

In this and the three preceding Volumes, the Objects (one Hundred and Eighty two species) which are exhibited in about five Hundred figures, were all gathered in their native places of growth by me, or sent by my Friends when newly gathered, and every figure drawn immediately from those Objects by my own hands.

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Your Lordships  
most Obedient Servant  
James Bolton

Halifax  
Nov.<sup>r</sup> y. 3<sup>d</sup>  
AD 1787.

"My Lord" referred to is the Earl of Gainsborough.

The first volume is dated 1784, and the note at the end of the sixth is dated January 5th, 1792. A comparison of the plates in the manuscript with those in the published work shows that all the species in the printed volumes are found in the manuscript volumes and also a few not published. In the manuscript the species illustrated are all on separate plates, whereas in the printed volumes several small species, sometimes four, are combined on a single plate. In the manuscript the species illustrated are arranged in the order in which they were collected and drawn. When they were transferred to the copper plates for printing they were re-arranged and re-numbered. As the author states, he made some of the drawings directly on the copper plates from fresh specimens, but he also illustrated the species in the *Icones*.

A comparison of the published plates with the manuscript shows that most of the illustrations were transferred from the manuscript plates to the copper plates for the published illustrations. Opposite each plate is a brief description or note regarding the specimen illustrated indicating where and when it was collected. In the "Advertisement" on the first page of fascicle 2 the following statement is made:

## ADVERTISEMENT

The written part contains little more than a specifying of the place and time where each species was gathered, and a few remarks upon such properties relating to them as could not well be expressed by the Pencil; For when an Object in Natural History is faithfully represented by Lines and Colours, I think it quite unnecessary to accompany such a figure with a descriptive History in writing.

Halifax

Sept.<sup>r</sup> y<sup>o</sup> 20<sup>th</sup>  
1786.

The following two quotations will give an idea of the character of these notes.

Fasc. 3, p. 94, opposite pl. 94, MS. :

*AGARICUS RUBEUS*, HIST. 36

Red Agaric

This new and beautiful species I gathered in company with my Friend Mr. Paul Shackleton the Entomologist, in a little Wood at Shibden Hall near Halifax October ye 29th, 1786.

Gills in three series, transparent in some lights, and of a Ruby colour. Pileus looks like Pillow Fustin made of dark red Cotton. Stem tough solid crooked and near the root a little swell'd. No volva. I never met with it before or since.

Fasc. 3, p. 132, opposite pl. 132, MS. reads as follows :

*SPHAERIA MORI* HIST. 120. f. 1

Mulberry Sphaeria  
Sph. fragiformis

This Sphaeria was brought me by Wm. Alexander M.D. a Most ingenious Botanist and steady Friend, who has accompanied me in many of my most arduous and

extensive Botanic rambles, has swarmed the dreary precipices at Ingleborrow, Skiddow, y<sup>e</sup> Glydar, & Criby destillh, with a spirit & Resolution *wh.* Indicates a true Botanic Genius.

The Sphaeria grew on the Bark of a fallen Maple Tree near his House in Halifax,—  
I have figured it as it appeared under magnifiers of two different powers.

The dates of collection and localities given in the manuscript usually agree with those given in the published work.

It seems evident from his statement in the "Advertisement" quoted that he changed his mind in regard to the desirability of including descriptions of the species illustrated when he came to prepare the "work" for publication and also changed the title from *Icones* to *History*.

Various persons and localities are mentioned in the manuscript which are not found in the published work (as in the case of Dr Alexander and Mr Shakelton). Some of these references might possibly furnish clues which would lead to the discovery of more information in regard to the author and his work. On two blank sheets at the end of vol. iv there is evidence that two sheets of manuscript which had been pasted in have been removed. This is shown by the presence of patches of red sealing wax on the sheets and some remains of the sheets with traces of writing not in Bolton's hand. These sheets may have contained valuable information regarding the volumes but were removed by some previous owner on account of their holograph or autograph value. An appeal to the bookseller for information regarding the previous owner of the volumes gave only the statement that he bought it at a sale and knew nothing of its previous history. Perhaps some of our English colleagues, who may well be proud of their first distinguished Mycologist, will be able to pursue this subject further.

In a biographical sketch published in *The Halifax Naturalist*, vol. vi, § 36, pp. xlvi—liv, February, 1902, prepared by the editor, W. B. Crump, it is said that "It is doubtful whether the originals for the History of Fungusses are still in existence. They were probably destroyed by fire when the old hall at Exeton (the family seat) was burned in 1810." This reference is to the home of Bolton's patron, the Earl of Gainsborough. It is also stated that some other drawings which the Earl received from Bolton are now in the British Museum (Natural History). These illustrations are referred to in the above-mentioned sketch and also in Masec and Crossland's *Fungous Flora of Yorkshire*. The numbers and dates they bear indicate that they were prepared after the original manuscript had been completed and bound, and the printed work published. It would be interesting to know the history and wanderings of these manuscript volumes after they left the Library of the Earl. They contain no book plates and no inscriptions except that in vol. i there is a note in pencil "lent to Miss A.B." and on the inside of the cover in vols. ii, iv and v is written in ink "Colborne



Westharling." Whoever possessed the volumes for the past hundred years or more has certainly given them excellent care.

But little seems to be known about Bolton's life and the date of his birth is uncertain. As he says on the title-page of his *History of the Fungusses of Halifax* that he was a member of the Natural History Society of Edinburgh, we thought it possible that the record of the Society might contain the date of his birth or some other information concerning him. Mr C. E. Foister, of the Department of Botany of the University of Edinburgh, has kindly searched such records as are available but can find nothing regarding Bolton.

Bolton is said to have gained his livelihood chiefly as an artist, draughtsman and teacher of drawing. He seems to have been largely self-educated and never to have had much formal instruction in Botany. He evidently spent most of his leisure during his life in the collection, study and illustration of the fungi and other plants and animals. He seems to have possessed or had access to some of the mycological works available at that time, as in the introduction to vol. II of his published work he speaks of having made use of Linnaeus, Micheli, Battarra, Sterbeeck, Gleditsch, etc. As his work was done before the appearance of the works of Persoon and Fries, it is not to be wondered at that many of his identifications were erroneous. That he recognised his limitations and that his opinions of the identity of the species changed with the lapse of time and study is clearly indicated by comparing the numerous tentative names written in pencil which were first given to the species (79 in all) illustrated in the manuscript volumes with those finally adopted in the published work and inserted by him later in the manuscript volumes. In the manuscript volume many of the species were regarded as "nondescript," but before the work was published he had decided to refer a large part of such to species already described by previous authors. He therefore went through the manuscript volumes and inserted at the top of each page the name finally adopted for publication with the citation of the plate upon which the species occurs in the published work. Water-colour artists who have examined the plates marvel at the clearness and brightness of the colours and their study will probably throw more light on the identity of some of the species which have been misunderstood or are doubtful.











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ICONE S  
FUNGORUM

Circa

*HALIFAX*

Sponte

NASCENTIUM.

Fasciculus Quintus.

---

*By J. Bolton.*

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MDCCXCI





1961

*Mucor* species *Mal.* 154.

Frothy Mould.

This is placed by Bulliard amongst his *Reticulariæ*, and has figured it in its white state, Pl. 326. In its yellow Pl. 380 f. 1. — It has a most loathsome and disagreeable appearance as we see it spattered upon the plants in the damp parts of woods. — To a man subject to my weaknesses, a shy appetite & too delicate feelings, it is really forbidding. I have sometimes met with it at unawares, in large pieces, roping from one rotten substance to another, when it has so effected me, as to leave a loathing to my food for several days after.



(184)

*Mucor lycoperdon*. Hist. v. 3.  
Gally Mould.

This *Mucor* is placed by Bulliard among his *Stictulariae*, He calls it *M. lycoperdon*, and has given two figures, see Tab 446. f. 4. and 476. f. 1. The plants from which my figure was taken grew on an old beam of Wood over the boiler in a warehouse in this Town, and I have since seen much larger specimens on an old rotten tree root in a moist wood, in decay it neither withers nor dissolves but is entirely dispersed in dust.



1851

*Boletus impudicus* Mal. 134.

Reindeer Boletus.

This very rare plant was first  
 figured by Merbeck, in *Theatrum Fungo-  
 rum*, Tab. 29. f. B. But he, like the Artists  
 of his times, added so much of his own  
 fancy, that one might almost think  
 he had been dreaming about the nine  
 Muses. — I make no doubt of his plant  
 being the same as ours. I believe it  
 to be the same plant figured in *Oeder Flo-  
 ran*, Tab. 405. and named *Fucus digitatus*,  
 and by Battarra. A. Tab. 24. but the best  
 figure formerly given is by Blackstone  
 in *Specimen Botanicum* Tab. 1. —

My plant grew on a Log of Wood in the  
 Cellar of a Publick house in Leeds, in  
 October 1788.





(180)

*AGARICUS fuscopolidius* Pers. 136  
Pale brown Agaric.

This Agaric in size figure and formation of parts, has a resemblance to the *Agaricus molleus* Tab. 206 of this Work. - But differs from it so much in colour, texture; and in the curtain which in this is very thin and perishing, and in the *molleus* tough and permanent that I believe the two to be specifically distinct, it is a rare species here.







(187)

*Agaricus velveteus* Berk.

Velvet Stalked Agaric.

This *Agaricus* varies considerably in respect to quantity and colour, I have seen specimens this year 1792. very small, and crowded in clusters on short footstalks. The Pileus of a very pale dead yellow or straw colour near the rim, & not much darker in the Centre.

The species however, is at all times easily distinguished, by the dark colour and velvety touch of the stem, and by its growing on Putrid Wood, never, that I have seen, on the ground.



187









(188.)

*Agaricus zonarius*

# Belted Agaric.

*Ag. zonarius*

This very singular Agaric is very rare and needs no other character to distinguish it, beside the brown zones or belts on the pileus. It grows rarely on heaps of Litter after much Rain, I never found it growing on any other kind of soil, or in a dry season.







(139)

*Agaricus* *incisus* *Sw.*

Bright-Yellow Agaric.

*Agaricus incisus*

This is one of the summer Agarics and makes its appearance but very seldom, the time and place to look for it, is in June or July on dunghills or heaps of Litter after plentiful Showers of Rain, and the same observation holds good in respect to most of the summer Agarics. The *A. myodes* is the only exception which at present occurs to my mind.











(190)

*Agaricus conicus*

## False Shield Agaric.

*Ag. conicus*

This species I have only found on putrid wood in shady places, at first sight it looks not unlike the *Agaricus chypriotus*, but is easily distinguished from it, by its growing on wood, and in bundles from one common foot, by the pale colour of the gills, and by that the plant withers, not dissolves in decay,

203







(191)

Black & White Agaric.

This curious Agaric is so very rare in this neighbourhood that I never met with it but once. I was removing a large piece of Hypnum near the foot of an old tree in Puttin Park near Elland in search for Coleoptera, when I found some of the little radical tufts with a very minute Pileus in the centre and searching forward and backward I met with the specimens figured in the drawing.











(102)

*Helvella cristata* Pers.  
Cristly Helvella.

This *Helvella* grows on such old walls or rocks on our Hills, as Time has covered with Vegetable mould, and planted with the *Polytrichum commune* in its dwarf state. Schaffer on his 148. Plate figures a plant, which in some particulars resembles mine, & may probably be the same species. But he has given a black citation on the Margin which I never could find in my plant.







(103)

*Clathrus. phaeocarpus. Pers. Syn. 1.*  
Gray round headed *Clathrus.*

This *Clathrus* is the same plant that is figured on Tab. 181. but was there figured in its dry state here in the perfection of its growth. Dillenius considered it as a Lichen and gives a bad figure in Hist. Musc. Tab. 14. Fig. 5. Haller has also figured it Tab. 48. Fig. 2. But the swelling semi pellucid base was disregarded by both, which character alone is sufficient to discriminate the species.











(194)  
Peziza striata Pers. var. f. r.  
Striated Peziza.

This species is much less frequent here than the *P. lentifera*. It grows on the putrid stumps of trees in moist places, is hairy on the outside and shape like an inverted cone, not like a bell.

Bulliard has not arranged it among the *Peziza* where Simplicius placed it.

He makes a distinct genus which he calls *Midularia* and which consists only of the *Peziza lentifera striata* & *Lacis*.







(1957)

*Periza* *sp.* *Periza*

Bended *Periza*.

This little *periza* is to be found on small sticks and stems of plants when in a putrid state and lying near the springling of some gutter or hill of water it is of a very tender and delicate make and shrivels up to almost nothing in drying. —









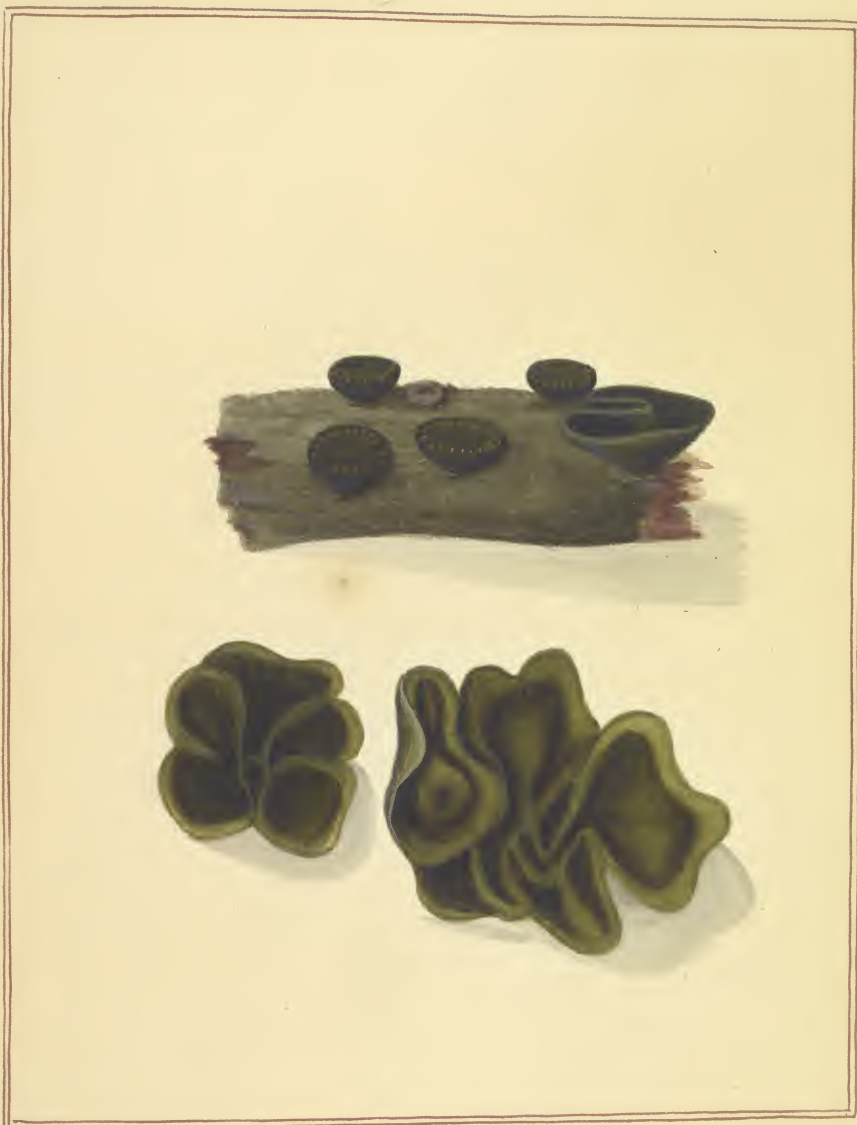
(196)

*Periza auricula*. Holm.

Cared *Periza*.

This I believe is not the *Periza auricula* of Dr Linnæus. — It is the *P. auricula* of Helman in Flor. Cant., and the *P. Noir* of Bulliard Pl. 460. The Author of the Flo. Danica calls it *Tremella atra* and has figured it Tab 884.

This last I think is the best name.







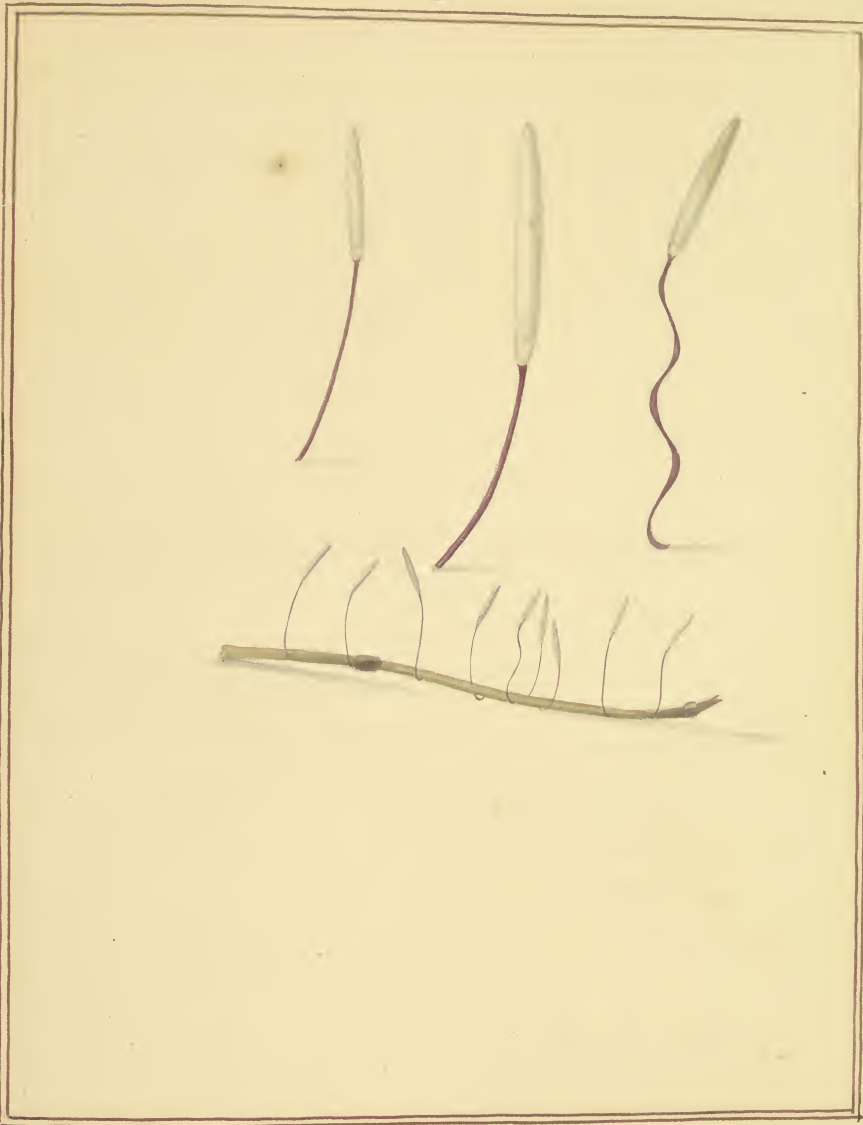
(197)

*Clavaria* *gyrana* *Rehm* *in* *fl.*  
Twisted Clavaria.

This delicate Clavaria I gathered in a deep gutter on the stems of withered grass and small sticks which lay near the edge of the water and were very moist or wet. The Clavaria digitata grew in plenty near the place, and a thought struck me that this was that plant in its first stages or immediately from seed. but finding it had been considered as a species by others, and having already drawn on my head some ill will by attempting to restore some <sup>imaginary</sup> species to their original <sup>places</sup>. I dared not to declare my opinion.



191









(198.)

*Sphaeria brassicae* Willd. no. 17. 2.  
Cabbage Sphaeria.

This I call *sphaeria* not knowing  
where else to place it and in compli-  
ance with Dickson Gleychen &c.

I suppose Williard would place it in  
the Genus he denominates *Sly procyon*

I have not been able to discover  
any seeds as the plant is solid and  
of a firm gristly substance unlike any  
other *sphaeria* with which I am acquaint-







*Sphaeria ulsteri* Fieb. 1844

Tumored Sphaeria.

*spha pulicaris*

This curious sphaeria has been considered as a Lichen. Lightfoot in his Flora scotica calls it *S. pulicaris* from its likeness in colour shape and size to a Flea. we often see it on the fallen twigs of ash trees which have lain amongst weeds till they are become moist and the bark soft and spongy. — I know not of any figure that has been given of it except my own.









(200)

*Sphaeria obducta* Pers. 105

Covered *Sphaeria*.

This *Sphaeria* is easily found by picking up pieces of small rotten sticks in the moist parts of woods or under sledges. When the Barkus begin to grow soft and putrid this plant forms little tubercles under the outer coat of them and is when it first makes the eruption covered with a soft gray downy covering, which soon falls off and leaves the black clusters naked.

200







(201.)

*Sphaeria deusta*. Bull. t. 432.

Depressed. *Sphaeria*.

This pretty *sphaeria* is rare here  
It grows on the bark of Sallow Trees  
upon such branches as are by some  
accident dead and yet remain on  
the tree in a dry state, or when fallen  
in dry places. — I believe it to be  
the same plant which Bulliard has  
figured on his 432. Plate fig. 2. and  
called *Variolaria punctata*. It also  
resembles his *Hypoxylon glomerula-*  
*tum*. Pl. 486. Fig. 3.



901









*Sphaeria militaris* Hal. no  
Military Sphaeria

I am informed that this Plant almost always grows from the dead Larva or Pupa of Insects when perished under the surface of the earth. so it is figured in the Flora Danica &c, but I have proof that it does not always grow on such substances. having gathered it from other substances.

209







(203)

*Sphaeria foliacea* Hed. var.  
Leafy Sphaeria.

This plant has been considered as a Lichen by all. But if we are to regard the manner in which Plants construct their seed vessels and form and nourish their seeds, in the arranging of <sup>them</sup> ~~plants~~ we must of necessity make this a Sphaeria. However so unlike in appearance —

How varies Nature.



208









(204)

*Agaricus* *capillaris* *Fr.*

Broad necked Agaric

This Agaric I gathered on a Dry hill growing amongst dry hard gravel in the full shining of the sun on the ninth of June 1790. The day was very hot and the plant seemed in great vigour. I gathered two of the largest specimens and left several young ones, which on returning to the place three days afterward I found in full perfection. I know not that ever I saw any other Agaric sustain the heat of the sun in like manner and yet this lost its colour figure and shrank to almost nothing in drying.







(205.)

*Agaricus congregatus* Berk. 1800

Congregated Agaric.

This elegant cluster grew on a steep  
brow in the end of a Wood near Bushy Hall  
The stems from one common foot grew  
at first horizontally and then curved up-  
wards. The specimen which I figured  
was amongst many handsome ones  
the most perfect and elegant. I sent  
the dried specimen to my Friend Dickson  
for a Name but he found none.











(206.)

*Agaricus muscarius* Pers. 1013

Honey'd Agaric

This is a downright fugitive in the Autumn of 1790 it came up in great abundance in the Wood called Shroggo it grew all along the Horse way on both sides from one end to the other about the roots of the Trees. but at the same place and time of the Year in 1791. not a single plant was to be found there. There is a Good Figure in Vahl Filo. Dan. Tab 1013.







(207.)

*Agaricus Pleurotus. Part. 144*

*Pleurotic Agaric*

This agaric is of a tender and very perishable substance. I have found it on heaps of stable dung when in a state of fermentation - also on new raised heaps of litter when in the same state. It springs up in the night and perishes the following day and in a few hours undergoes all the mutations represented in the Drawing.











*Agaricus glaucus* Berk. m.

Glaucous Agaric.

This plant is nearly related to the *Agaricus politus*, and may possibly be a variety of it. It varies in being a larger plant in the colour which inclines more to blue and in that it grows in bundles from one common foot.







(209.)

*Agaricus muscarius* L. var.

Zoned Agaric.

What we call milk in Agarics, is not the common juice, or circulating fluid of the plant; for after the substance has been cut or broken at two or three separate, opposite places, the whole of the milky or coloured opaque liquor rushes out, and you may wound it again and again afterwards and none will flow, tho' the plant still retains, and on pressure, copiously yields a limped fluid.











(210.)

*Agaricus cupped. Ital. m.*

Cupped Agaric.

In 1790. in February this plant came up in an old melon bed in Mr. Caygills Garden at Sha. soon after the Earth of the bed was removed. and in February 1799. the plant appeared again in that part of the Garden to which the Earth was removed, but few specimens came up. and since then Mr. Duncan Gardener there has not found it. Can we suppose it an Exotic brought into the Garden with imported stools Earth seeds &c.?







(211.)

*Agaricus carneus*, Bull. 107.

## Fleshy Agarick

Tho this is while fresh, very firm, and of a solid hard substance yet in drying it becomes so soft wrinkled and colourless as not to retain the least resemblance of itself in a fresh state. It is a very rare species, I never found it but at one time, it grew on the plain surface of old Maple stocks from which the trees had been sawd off two years before.











*Agaricus bulbosus*

## Bulbous Agaric.

The Name *bulbosus* (tho in compliance w<sup>th</sup> Ray Dillenius Hudson &c) here retained, is by no means a good one; because many other Agarics are as manifestly bulb rooted as this. I believe it is a rare species in this Kingdom Dillenius found it near Newington. I gathered the specimen here figured in a little wood in Overton in October 1790. and have not found it any where else.







(213.)

*Agaricus canaliculatus* Pers. 1796

Branched longrooted Agaric.

This very singular Agaric I have found in the Plantations about Triaby Hall, but the specimens there found were not so well grown as the Drawing represents,

The Plants from which I took the figures were sent me from Darlington, by my good Friends Robson & Flintoff. These two Men by profession Quakers, by Nature true Botanists, have been long collecting the Plants of their respective Neighbourhoods, and have pursued the Trunzi with particular avidity.

And have with a truly disinterested generosity sent me their whole collections in this kind, sent in Boxes, and large Portfolios for my information. By this means I was enabled to discriminate or investigate several of the Plants in my appendix, specimens whereof I had gathered here, but in such imperfect conditions that, could not have thought it safe to publish them.





*Agaricus campestris*  
L. var. *subserotus*

Plates & text, 214-16, come after 219.



(217.)

*Agaricus glaucus* Mac. 155.

Fostered Agaric.

This plant so much resembles the *Agaricus tuberosus* of Bulliard Pl. 256. that I believe it to be the same species tho' no Tubercles were at the foot of any Plant. —

But as there is a possibility of its being a distinct plant I thought it better to give a trivial name somehow expressive of the plant without having regard to the figure of the foot.

317









(218.)

*Lycoperdon perlatum*. Pers. Rh.

Downy Agaric.

This curious Agaric grows in moist places amongst Moss and Heath in our Peat grounds it is a very curious species. Bulliard has given a neat figure Pl. 138 but he did not observe the Plant in the last stage of its growth. Michxii has given a bad figure Tab. 79. f. 3. I find no other account of the species.

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(219)

*Agaricus. Radiarius. Tab. 10.*  
Fan shaped Agaric.

This species grows from putrid stumps  
or old trunks of trees. in the larger speci-  
mens the gills are extended to a great length  
and in some old plants crenated on the edges  
as the small section represents.

Schaffers specimen figured on Tab 43. 44  
was less compact and uniform than mine  
but Vahl in Flo Dan Tab 891. was much  
more perfect. it is a rare species here.









*Fungi in the Great Hall, mounted by the artist of the British Museum.*



Whether this species be peculiar to the grounds where sheep are fed I cannot say. It seems probable to me that it is so because I have never found it in any other grounds. The whole substance of the plant is light orange soft and springy when fresh between the Tongues. It withers in decay.

White Spang.

*Staphylea trifolia*







This fungus grows frequently in those  
 circles of green which we call harebells  
 or the winter daisy, What these rings  
 are I cannot discover they are not that I  
 can observe peculiar to any sort or situation  
 I have seen them of all dimensions from  
 six to sixty feet in diameter, and have dug  
 them up to the depth of a Garden Spade, both in  
 the green being itself and at the centre of the  
 circle, as well as trenching it in various direc-  
 tions, but could never find the tracks of Mice  
 or other animals which could lead to  
 any investigation of the phenomenon,

Fungus Agave

The British naturalist, Vol. 158

(215)









This figure tho not rare in many parts of the Kingdom, is as in the neighbourhood of Staford, I never have seen it except in one spot, on a little bog at Little more the top of a precipice near Brewha that where numbers of them have sprung up the base foot autumn, this precipice is a little steeper, which we have here, continually wetting and get increasing, the foot of it is washed by a rapid brook.

Emmerson coloured figure





## Leathery Agaric.

This Agaric puts on very various shapes in various situations and stages of growth. I am inclined to think it is the species meant by Linnaeus for his *Agaricus quercinus*. I am more of this opinion because the plant upon which that name is now imposed is so evidently a *Boletus* in its whole habit after the very first stages of its appearance that Linnaeus would not I think have called it an Agaric. This is a plant totally distinct and retains the figure of its gills to the last.









(221.)

*Boletus* *hispidus* Bull.

## Hairy Boletus

This handsome *Boletus* imbibes water like a sponge. It is a rare species about Halifax but grows very plentifully in the County of Durham. In its different states and stages it puts on different appearances.

Bulliard has figured it in its hairy or shaggy state under the name *B. hispidus*, and in its smooth state under that of *B. pseudo-ignarius*.

It is not this species the true officinal *Boletus*, or Agaric of the Shops?





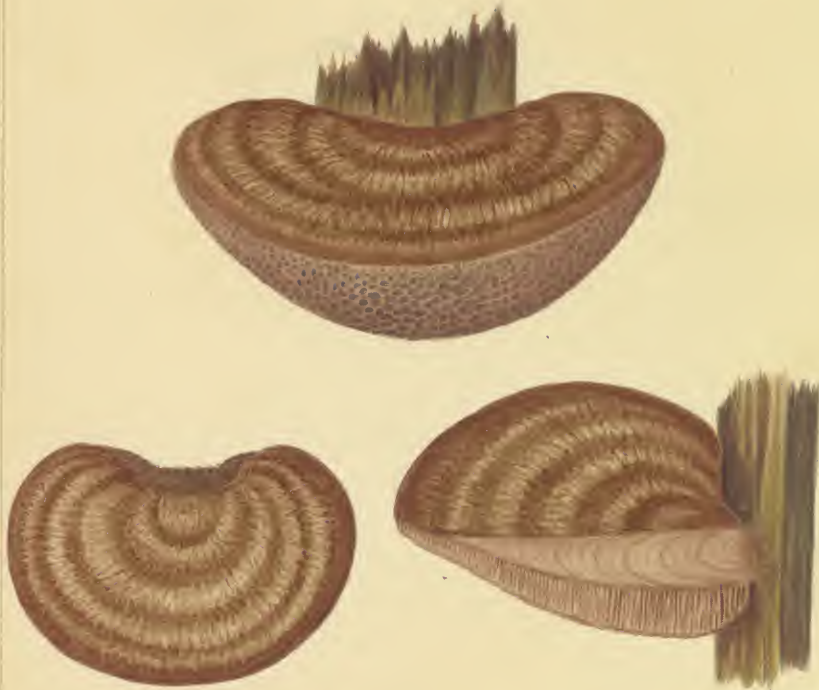


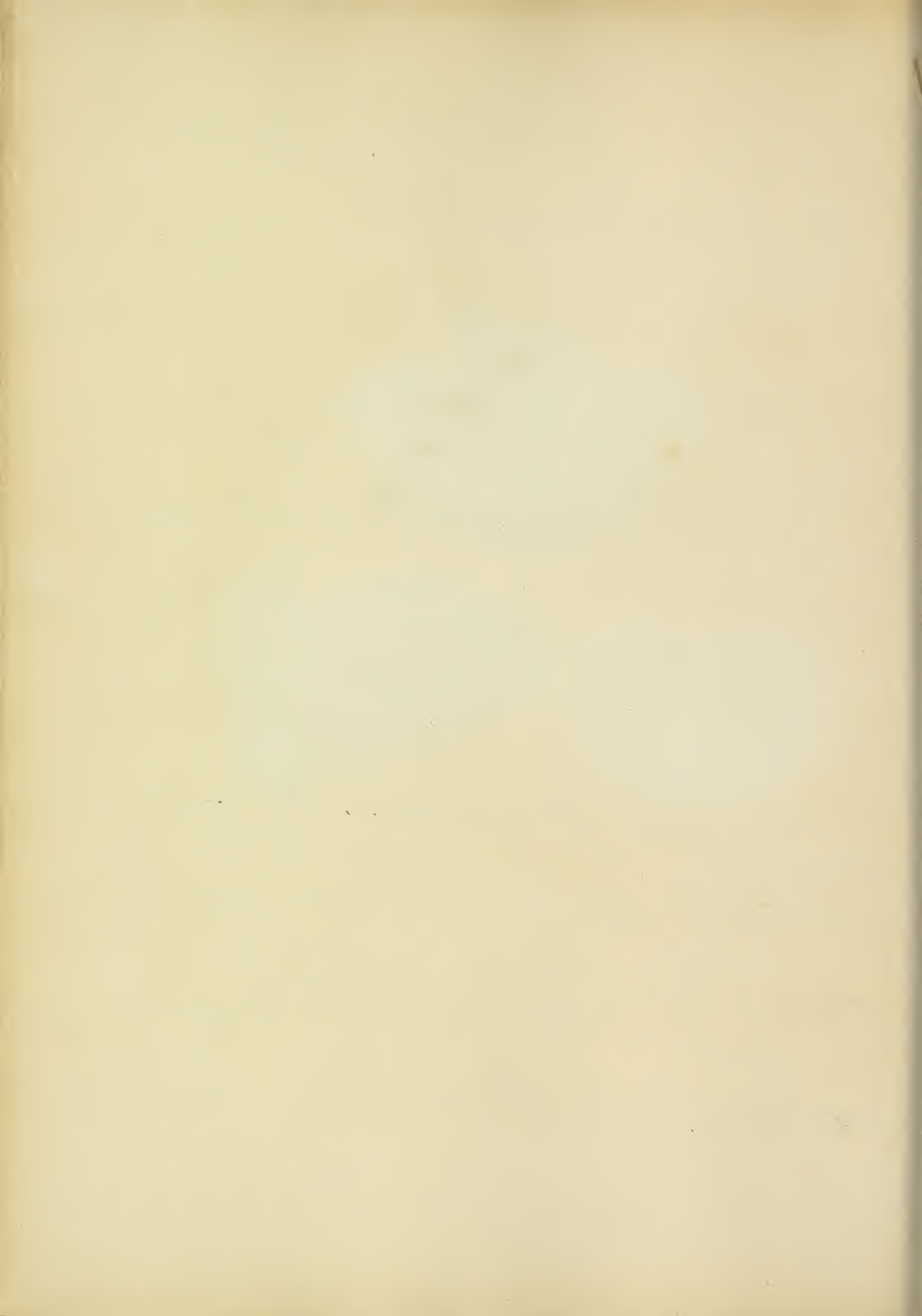


*Polyporus rugosus*

## Rugged Boletus.

This very beautiful Boletus, which grows rarely here and very plentifully about Darlington, has not before been figured except by Poullet, who calls it *B. labyrinthiformis*. It is of a firm tough woody substance and dries and abides without shrinking, a circumstance with which few of the *Turpi* are attended. It grows on Ash Thorn or Haste when in a putrid state and pretty dry.







(223.)

*Boletus badius* Pers.

Birch Boletus

This is a very handsome species and sometimes large, a foot or more in diameter. it is of a soft & spongy substance when recent. when dry becomes tough firm & elastic. in both states the internal substance is of a fair white. it is not easily cut into even pieces. It retains fire for a time <sup>which</sup> but goes out before it is wholly consumed.











(224.)

*Polypodium suberosum* Linn. var.

Cork Polypodium.

From a particular spicy smell  
in this plant I think it most like-  
ly to be the suavelens of Linnæus  
I have called it suberosus because it  
agrees so well with Linnæus' descrip-  
tion of that species, and yet there  
is nothing in it which disagrees  
with his description of suavelens,  
a description indeed from which little  
is to be learned except the Lapland  
anode of Courtship.





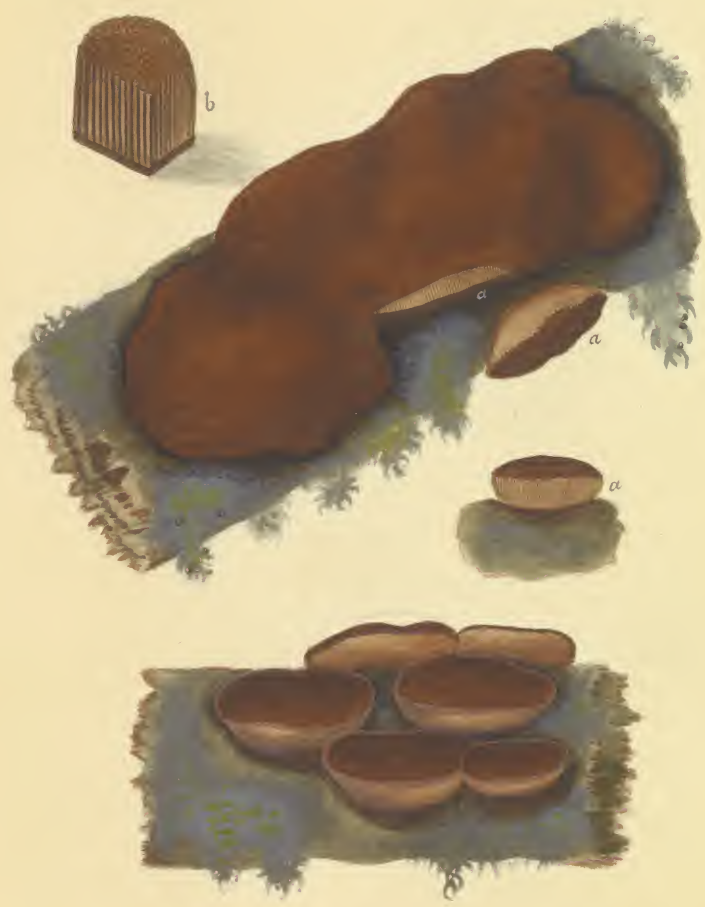


*Boletus* *var.* *Thal.* *1792*

## Lupine Boletus

If this is not the same plant which Bulliard calls *Boletus cryptarum* it must be anew and hitherto undescribed species, for I do not find any other author making mention of it in either its creeping or tubinated state. I have seen it again this winter 1792 on dry decayed Hasel stocks but not in any thing differing from what I had before observed.





*Hypholoma subterreum*







Variable *Boletus*

This *B. proteus* makes such terrible havoc amongst the *Aspicularia*, the *Merula* & *Helvella* of writers, that it is almost dangerous to relate plain facts under such circumstances. Whatever others may have seen or written I could never discover any kind of fructification, no pores, tubercles or anything that could indicate a possibility of producing seeds, till I found the cells or pores in the specimen marked b. in the Drawing, a portion of which is magnified at c. — as in Hist. p. 166.







(227)  
*Boletus* *luteus* *Boletus* *luteus* *Boletus* *luteus*

*Irregular Boletus.*

I do not find that this species has been taken notice of by any English writer since the time of Traxer and Dillenius. I believe it a very rare Plant.

I gathered a few specimens on a dry bank under an Oak Tree by the Coach Road at Fusby Hall and My Friend Schinloff found it in a like situation in the County of Durham.









*Boletus* *versicolor* *var. n.*

One coloured *Boletus*.

This species in habit approaches so near to the *Boletus versicolor*, that at first view one would be induced to take it for a variety thereof. but on a more close examination we find the upper surface covered with a sharp hairy shag and not of the same kindly velvet touch of that of the *versicolor*, nor have I seen it putting on any of those varied purple green blue or yellow hues so constantly characterize that species.









*Boletus lucyana.* Linn. 1753.  
 Tearlike Boletus. Dry Rot.

This is the Plant vulgarly called Dry Rot, when it gets into Old Houses subject to damp, it makes terrible havoc in the Wainscot, in low rooms, corrupting, and decomposing the substance of the wood, nor is it possible to eradicate it after it has once got possession.

Some Years ago, a John Burleigh, Woodman in Norfolk near this place, in autumn had the stock of a Beech Tree sawn in two equal halves from end to end. It was about 16 Feet long, and two in diameter, but finding it not sufficiently fine & hard for his present purpose, it was laid aside, the two halves placed one upon the other just in the same manner as before it was sawn asunder. Six months after, wanting it for some other purpose, the two sides were found so firmly united together that it required the greatest force of mallet and wedges to separate them, when opened a Laminia of this plant, resembling <sup>internal</sup> Sheep's Skin, was found spread over every part of the whole surface.







*Boletus muscicola* Parisi Stal. 187Bread crumb. *Boletus*.

The place where this is to be looked for is in some staked Hedge in a dry situation and upon such stakes or binders as are become quite rotten. but still retaining their Bark.

It creeps on the surface of the Bark. is of a very thin substance and when old and of the same colour with the bark not easily discovered. It is of a pale colour at first turning fuscous with age. - The figure at .a. is in a young state at .b. it is older, and at .c. magnified a little. It is in its nature and habit nearly related to the Dry Rot---

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130











(231.)

*Boletus calvatus* Fr. n. 2

Slipper Boletus.

This grows on several kinds of wood when in a state of decay and in dry situations. It is scarce in this neighbourhood. This is the same plant which is figured in an old state, Tab. 68, of this work; when that figure was drawn, I had no specimens in any other state. It grows in Yorkshire and the Bishoprick of Durham. Bulliard has figured it. Pl. 445. fig. 2.







(232.)

*Boletus annulatus* Berk. & S.

Annulated Boletus

This fugitive grew plentifully here in a wood in 1790. Since then or before that time I have but very rarely seen it. The specimen figured I thought the most beautiful and elegant object I had ever met with amongst the Fungii.

I wished much to dry some specimens but all attempts proved unsuccessful, & a great inconvenience that no method can be thought of to preserve these Plants in their figure & colour—











(233)

*Polypodium*

*Spindleshank Polypodium*

This Species for ought that I can find is truly nondescript. It is a pretty Plant, and I suppose a very rare one.

The few specimens I have met with here have been small and imperfect, but in Thunbergs collection I found good and perfect ones and from these I took the figure, on Tab. 233.





